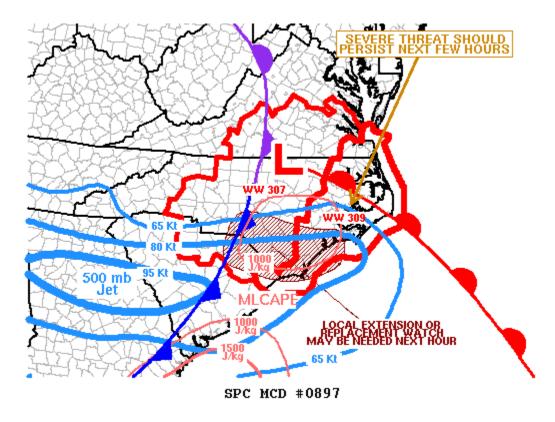
# May 11th, 2008 Mother's Day Severe Weather Outbreak

# **Overview/Warnings**

A Tornado Watch was issued at 445 pm for all eastern North Carolina effective until 11 pm. In total, 8 Tornado Warnings and 11 Severe Thunderstorm Warnings were issued by the Newport/Morehead City office. The first warning was issued at 537 pm with the last issuance at 906 pm.

The following Mesoscale Convective Discussion was issued by the Storm Prediction Center in Norman OK at 530 pm local time which highlighted the threat for supercell development over eastern North Carolina in the next few hours.



MESOSCALE DISCUSSION 0897 NWS STORM PREDICTION CENTER NORMAN OK 0630 PM CDT SUN MAY 11 2008

AREAS AFFECTED...ERN NC...NE SC

CONCERNING...TORNADO WATCH 307...

VALID 112330Z - 120100Z

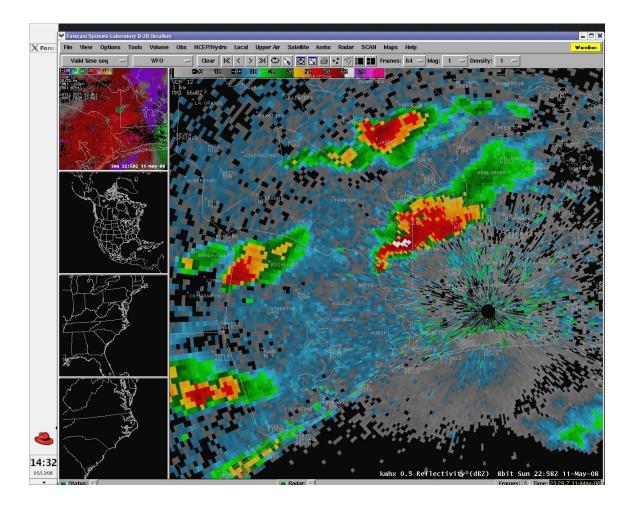
THE SEVERE WEATHER THREAT FOR TORNADO WATCH 307 CONTINUES.

THE SEVERE THREAT WILL SPREAD EWD ACROSS THE PAMLICO SOUND AREA OF ERN NC AND WILL PERSIST ACROSS SRN NC FOR SEVERAL MORE HOURS. A TORNADO OR TWO REMAIN POSSIBLE HOWEVER...LARGE HAIL AND WIND DAMAGE SHOULD BE THE PRIMARY THREATS WITH THE STRONGER CELLS. A REPLACEMENT WW MAY BECOME NECESSARY OVER THE NEXT HOUR ACROSS SRN NC.

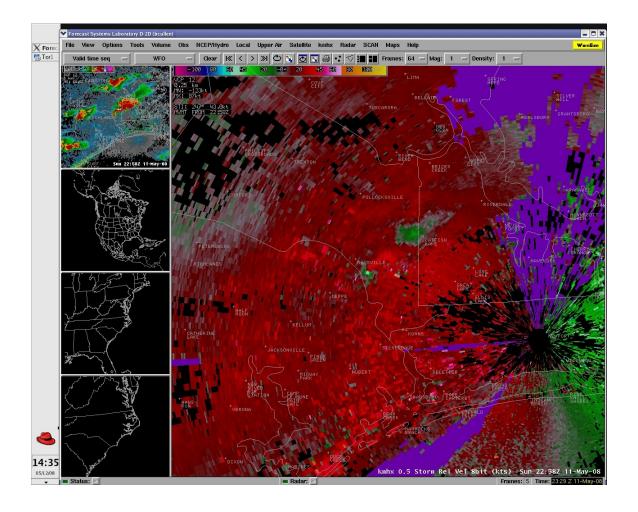
LATEST SFC ANALYSIS SHOWS A 994 MB LOW OVER NE NC WITH A OUTFLOW BOUNDARY EXTENDING WSWWD INTO CNTRL NC. A COLD FRONT IS PRESENT FROM NEAR RALEIGH NC SWD INTO CNTRL SC. RUC DATA SUGGESTS MODERATE INSTABILITY REMAINS EAST OF THE BOUNDARY WHICH COMBINED WITH STRONG VERTICAL SHEAR ASSOCIATED WITH THE LEFT EXIT REGION OF A 85 TO 95 KT MID-LEVEL JET WILL BE SUFFICIENT FOR SEVERE STORMS AND ISOLATED SUPERCELLS. ALTHOUGH A FEW TORNADOES REMAIN POSSIBLE ACROSS ERN AND SRN NC...WSR-88D VWPS SHOW VEERING LOW-LEVEL WIND PROFILES SUGGESTING THE TORNADO THREAT MAY BE DECREASING. EVEN SO...THE THREAT FOR LARGE HAIL AND WIND DAMAGE WILL LIKELY CONTINUE AS SEVERE STORMS MOVE INTO THE COASTAL AREAS OVER THE NEXT 1 TO 3 HOURS.

## **Radar Displays**

Here is are Base Reflectivity (REF) and Storm Relative Motion (SRM) images from the Newport/Morehead City WSR-88D radar during the time that the tornado was on the ground near Maysville.



The hook echo appendage is clearly visible on the 0.5 deg Base Reflectivity product. The radar beam height is approximately 1200 feet.



The 0.5 deg Storm Relative Motion (SRM) also clearly shows a strong rotational couplet on the 0.5 radar slice that coincides with the base reflectivity. The VR/Shear tool indicates 50kts of rotational velocity which is in the very strong category for mesocyclones.

### Storm Damage and Hail Reports

Reports of severe weather began to filter into the office around 7 pm with public and county official reports of a possible tornado touchdown in the Belgrade/Maysville area. A preliminary rating of EF2 has been assigned to the tornado damage in Belgrade.

In the next few hours, numerous reports were received of hail as large as one inch and wind gusts as high as 60 to 65 mph. Structural and tree damage due to a possible tornado was reported in the Morehead city area shortly after 8 pm. This storm is preliminarily been assigned an EF1 rating on the enhanced tornado intensity scale.

EF SCALE						
EF Rating	3 Second Gust (mph)					
0	65-85					
1	86-110					
2	111-135					
3	136-165					
4	166-200					
5	Over 200					

This is a summary of storm reports received by the Newport/Morehead City NC office.

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NWUS52 KMHX 120216
LSRMHX

PRELIMINARY LOCAL STORM REPORT...SUMMARY
NATIONAL WEATHER SERVICE NEWPORT/MOREHEAD CITY NC
1016 PM EDT SUN MAY 11 2008

..TIME.....EVENT.....CITY LOCATION.....LAT.LON...
..DATE.....MAG......COUNTY LOCATION.ST...SOURCE....
..REMARKS..

0645 PM TORNADO BELGRADE 34.87N 77.24W
05/11/2008 ONSLOW NC EMERGENCY MNGR
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\*\*\* 6 INJ \*\*\* TIME APPROXIMATE. DAMAGE TO 25 BUILDINGS IN THE BELGRADE AREA.

0645 PM 05/11/2008	TORNADO	BELGRADE ONSLOW	NC	34.87N 77.24W COUNTY OFFICIAL		
	911 CENTER RECEIVED SEVERAL REPORTS OF TORNADO TOUCHDOWN IN THE BELGRADE AREA.					
0657 PM 05/11/2008	TORNADO	SE MAYSVILLE JONES	NC	34.90N 77.23W PUBLIC		
0705 PM 05/11/2008	HAIL E0.88 INCH	VANCEBORO CRAVEN	NC	35.30N 77.16W PUBLIC		
0730 PM 05/11/2008	HAIL E0.75 INCH	HAWS RUN ONSLOW	NC	34.68N 77.57W PUBLIC		
0736 PM 05/11/2008	HAIL E0.88 INCH	JACKSONVILLE ONSLOW	NC	34.76N 77.40W PUBLIC		
	HAIL E0.75 INCH	7 S MAYSVILLE ONSLOW	NC	34.80N 77.23W PUBLIC		
0740 PM 05/11/2008	HAIL E0.88 INCH	JACKSONVILLE ONSLOW	NC	34.76N 77.40W PUBLIC		
0743 PM 05/11/2008	HAIL E0.75 INCH	JACKSONVILLE ONSLOW	NC	34.76N 77.40W PUBLIC		
0750 PM 05/11/2008	HAIL E1.00 INCH	HAVELOCK CRAVEN	NC	34.91N 76.89W PUBLIC		
0755 PM 05/11/2008	HAIL E1.00 INCH	NEW BERN CRAVEN	NC	35.12N 77.08W PUBLIC		
0755 PM 05/11/2008	HAIL E0.75 INCH	HAVELOCK CRAVEN	NC	34.89N 76.93W NWS EMPLOYEE		
0759 PM 05/11/2008	HAIL E0.75 INCH	HAVELOCK CRAVEN	NC	34.89N 76.93W PUBLIC		
0808 PM 05/11/2008	TORNADO	1 N MOREHEAD CITY CARTERET	NC	34.74N 76.73W PUBLIC		
	BRIEF TOUCHDOWN NEAR BRANDYWINE	WITH TREES DOWN AND SUBDIVISION.	TRAM	POLINE FLIPPED		
0810 PM 05/11/2008	TORNADO	MOREHEAD CITY CARTERET	NC	34.72N 76.73W PUBLIC		
	REPORT OF TRAILER OVERTURNED IN THE MOREHEAD CITY WAL-MART PARKING LOT.					
0817 PM 05/11/2008	FUNNEL CLOUD	2 E BEAUFORT AMZ158	NC	34.72N 76.62W PUBLIC		

#### FUNNEL CLOUD SPOTTER EAST OF BEAUFORT.

0817 PM 05/11/2008		2 N MOREHEAD CITY CARTERET		34.75N 76.73W PUBLIC	
	POSSIBLE FUNNEL CITY.	CLOUD TOUCHDOWN JUS	T NOR'	TH OF MOREHEAD	
	HAIL E0.88 INCH	JACKSONVILLE ONSLOW	NC	34.76N 77.40W PUBLIC	
	NICKEL SIZED HAIL REPORTED NEAR NEW RIVER AIR STATION.				
	HAIL E0.75 INCH	CAMP LEJEUNE ONSLOW		34.70N 77.37W PUBLIC	
0827 PM 05/11/2008	TSTM WND GST M60.00 MPH	BEAUFORT CARTERET	NC	34.72N 76.65W PUBLIC	
	BEAUFORT TOWN DOCK				
	HAIL E0.88 INCH	CAMP LEJEUNE ONSLOW	NC	34.70N 77.37W PUBLIC	
	TSTM WND GST M54.00 MPH	BEAUFORT CARTERET	NC	34.72N 76.65W PUBLIC	
	HAIL E0.88 INCH		NC	34.89N 76.35W AMATEUR RADIO	
0933 PM 05/11/2008	TSTM WND DMG	RODANTHE DARE	NC	35.61N 75.46W TRAINED SPOTTER	
	WIND GUST TO 65 MPH RECORDED.				

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This is a graphical display of from the Storm Prediction Center of national severe weather reports.

